### Air Resources Board



1001 I Street • P.O. Box 2815 Sacramento, California 95812 • www.arb.ca.gov



# NOTICE OF DAIRY MANURE TECHNOLOGY FEASIBILITY ASSESSMENT MEETING

The Dairy Manure Technology Feasibility Assessment Panel (Panel), comprised of representatives from state and local government, federal government, industry, environmentalist, conservationist, and academia, will hold their next public meeting on April 7, 2005 – details listed below. The purpose of the Panel is to review technologies most likely to improve the management and treatment of dairy manure in the San Joaquin Valley. The goal of the Panel is to produce a report that: lists and describes these technologies, assesses the environmental and economic performance of each technology, and makes recommendations about which types of technologies may hold the most promise for improving dairy manure management and treatment in the San Joaquin Valley.

The meeting is open to the public, and details for the meeting are as follows:

DATE: Thursday, April 7, 2005

TIME: 9:00 a.m. to 5:00 p.m.

LOCATION: California Air Resources Board

1001 I Street, Training Room 1

Sacramento, CA 95814

The meeting will also be teleconferenced. If you wish to participate by phone, please use the following dial-in information:

DIAL-IN: 866-730-8668

**PASSCODE: 7212384** 

For additional information regarding this meeting, contact Heather Arias at (916) 323-2722, or James Liebman, US EPA, at (415) 947-4241.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <a href="http://www.arb.ca.gov">http://www.arb.ca.gov</a>.

## **Dairy Manure Technology Feasibility Assessment**

April 7, 2005 9:00 a.m. – 5:00 p.m.

# California Environmental Protection Agency Building 1001 I Street, Training Room 1 Sacramento, California

### Welcome, Introductions, Opening Remarks

9:00 a.m. Jamie Liebman, U.S. Environmental Protection Agency

Michael FitzGibbon, Air Resources Board

### Summary of March 4, 2005 Meeting

9:05 a.m. Heather Arias, Air Resources Board

Websites:

http://www.arb.ca.gov/ag/caf/dairypnl/dairypanel.htm

http://www.manureproducts.info

#### **Submittal Evaluations**

Panelist will be discussing evaluations of each submittal during the approximate times listed below. To allow enough time for discussion by the Panelist we ask the public to hold any comments or questions until the open session. Please remember we will also be asking for public comments on the draft report released in June.

| Gasification      |     |   |
|-------------------|-----|---|
| 9:10 a.m.         | #1  | Advanced Concept Technologies ~ PSRG Gasification & Catalytic Reduction to produce Ethanol from Manure<br>Michael FitzGibbon (Stephanie Kato) |
| 9:20 a.m.         | #16 | Coaltec Energy ~ Gasification  Mathew Summers   |
| 9:30 a.m.         | #29 | Primenergy ~ Solids Gasification & Energy Production  Allen Dusault   |
| 9:40 a.m.         | #31 | Pyromex ~ Pyromex-Pyrolysis-Hydrolysis Ultrahigh Temperature Gasification  Mathew Summers   |
| <u>Separators</u> |     |   |
| 9:50 a.m.         | #22 | Integrated Separations Solutions ~ Nutrient Partitioning System<br>Deanne Meyer   |
| 10:00 a.m.        | #24 | Kyte Centrifuge ~ Manure Separator  James Liebman   |
| 10:10 a.m.        | #27 | Nutrient Control Systems ~ Integrity Nutrient Control System<br>Steven Storelli   |
| 10:20 a.m.        | #40 | Hydrolve ~ Tempest Drying System  James Liebman   |
| 10:30 a.m.        | #44 | Baleen Filters ~ Baleen  Mark Cocke   |

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|--------------------------------|-------|--|
| 10:40 a.m.                     | #45   | Tennessee Valley Authority ~ ReCiprocating Water Technologies<br>Frank Mitloehner  |
| Composting                     |       |  |
| 10:50 a.m.                     | #15   | CH2M Hill ~ Portable and Re-locatable Composting System<br>Steven Storelli   |
| 11:00 a.m.                     | #17   | Engineered Compost System ~ In-vessel and Aerated Static Pile<br>Composting System<br>Steven Storelli                                    |
| 11:10 a.m.                     | #23   | Jeesung Livestock ~ Organic Waste Composting Unit Steven Storelli  |
| 11:20 a.m.                     | #34   | Wildcat Manufacturing ~ Windrow Composting  Paul Martin  |
| 11:30 a.m.                     | #41   | Organic Waste Management ~ Field Wet Composting System<br>James Liebman  |
| 11:40 a.m.                     | #43   | Agriventures ~ Vermicomposting of Dairy Manure,  Michael FitzGibbon (Stephanie Kato)   |
| <u>Digesters</u><br>11:50 a.m. | #3    | Agricultural Sustainable Energy Technology ~ anaerobic digestion +   |
|                                |       | biogas power generation + fiber conditioning  John Shears  |
| 12:00 p.m.                     | GET I | LUNCH & BRING BACK TO EAT  |
| 12:20 p.m.                     | #4    | Agricultural Waste Solutions ~ System for Converting Animal Wastes to Energy and Useful By-Products  Michael FitzGibbon (Stephanie Kato) |
| 12:30 p.m.                     | #6    | Agrimass ~ Induced Blanket Reactor (anaerobic digestion)  George Simons (Jessica Zhang)  |
| 12:40 p.m.                     | #7    | AgSmart ~ The O2 Solution  Al Vargas   |
| 12:50 p.m.                     | #9A   | Baumgartner Environics ~ Nitrification/Denitrification (NDN) Nutrient Management System<br>Frank Mitloehner                              |
| 1:00 p.m.                      | #11   | Bigadan ~ Anaerobic Digestion<br>George Simons (Jessica Zhang)   |
| 1:10 p.m.                      | #13   | Biogas Technology ~ Biogas Technology<br>George Simons (Jessica Zhang)   |
| 1:20 a.m.                      | #14   | Bion Dairy Corporation ~ Bion Biological Nutrient Removal Waste<br>Treatment System<br>James Liebman                                     |

| Diary Technology F<br>1:30 p.m. | easibility #18 | Assessment Panel  Everstech Consulting ~ Everstech ET Process  John Shears   |
|---------------------------------|----------------|--|
| 1:40 p.m.                       | #36            | Sharp Energy ~ Anaerobic Digester Lagoons  Mark Cocke  |
| Aeration<br>1:50 p.m.           | #5             | Agrimass Enviro-Energy ~ Biological Remediation of Manure Wastewater and Manure solids<br>Al Vargas                      |
| 2:00 p.m.                       | #8             | Air Diffusion Systems ~ AMTSAdvanced Microbial Treatment System<br>Al Vargas   |
| 2:10 p.m.                       | #26            | Natural Aeration ~ CIRCUL8 Systems  Al Vargas  |
| 2:20 p.m.                       | #42            | OCTAFORM Systems Inc. ~ Octaform™ PVC Lined Concrete Tanks with Circul8 System CirCulator Mark Cocke                     |
| Others<br>2:30 p.m.             | #2             | Agricultural Modeling & Training Systems ~ AMTS Cattle  Deanne Meyer   |
| 2:40 p.m.                       | #9B            | Baumgartner Environics ~ Bio-Curtain® plus Electrostatic Particulate Precipitation Management System<br>Frank Mitloehner |
| 2:50 p.m.                       | #10            | Bencyn West, Inc ~ OrTec Biocatalyst  John Menke   |
| 3:00 p.m.                       | #12            | Baumgartner Environics ~ Bio Cap  James Liebman  |
| 3:10 p.m.                       | #19            | Flex Energy ~ Flex-Microturbine  Michael FitzGibbon (Stephanie Kato)   |
| 3:20 p.m.                       | #20            | Haskell Edwards ~ WaterReclamation System  John Menke  |
| 3:30 p.m.                       | #21            | Midwestern Bio-Ag Products and Services, Inc. ~ HumaCal™ Deanne Meyer  |
| 3:40 p.m.                       | #25            | Lanstar Enviro ~ Carbonisation  John Shears  |
| 3:50 p.m.                       | #28            | Omnifuel Technologies ~ Rapid Pyrolysis  Mathew Summers  |
| 4:00 p.m.                       | #30            | Pro-Act Microbial ~ Pro-Act Microbial Manure Munching Microbes<br>Frank Mitloehner                                       |

| 5:00 p.m. | Next                 | Steps  |  |  |
|-----------|----------------------|--|--|--|
| 4:50 p.m. | •                    | Open session to provide an opportunity for members of the public to address the Panel  |  |  |
| 4:40 p.m. | #39                  | Western Milling ~ Wet Combustion  Mathew Summers   |  |  |
| 4:30 p.m. | #35                  | City of Bakersfield - Solid Waste Division ~ Wood Chips<br>Mark Cocke  |  |  |
| 4:20 p.m. | #33                  | Waste Technology Transfer ~ Waste Technology Transfer (WTT bio crude oil from organic wastes)  Allen Dusault                       |  |  |
| 4:10 p.m. | y Feasibility<br>#32 | Assessment Panel  Sprecher Architects ~ Solar drying of manure and liquid wastes (outside & in greenhouse structures)  Paul Martin |  |  |